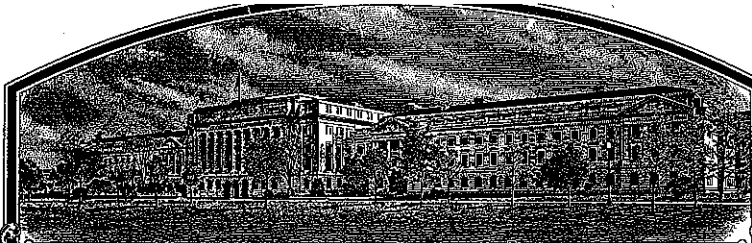


No.

200800038



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Seminis Vegetable Seeds, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOMATO

'FDS142081'

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this ninth day of December, in the year two thousand and eight.*

Attest:

*[Signature]*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

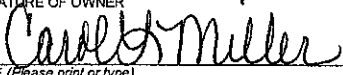
*[Signature]*  
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER <b>Seminis Vegetable Seeds, Inc.</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME <b>FDS 14-2081</b>		3. VARIETY NAME <b>FDS142081</b>	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) <b>2700 Camino del Sol Oxnard, CA 93030-7967</b>		5. TELEPHONE (include area code) <b>(805) 647-1572</b>		<b>FOR OFFICIAL USE ONLY</b> <b>PVPO NUMBER</b> <b>#200800038</b> <b>FILING DATE</b> <b>Nov 29, 2007</b>	
		6. FAX (include area code) <b>(805) 918-2545</b>			
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) <b>Corporation</b>		8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>California</b>		9. DATE OF INCORPORATION <b>4 June 1962</b>	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)				<b>FILING AND EXAMINATION FEES:</b> <b>\$ 4,382.00</b> <b>DATE 11-29-2007</b> <b>CERTIFICATION FEE:</b> <b>\$ 768.00</b> <b>DATE 10-29-2008</b>	
<b>Carol Miller</b> <b>Seminis Vegetable Seeds, Inc.</b> <b>37437 State Hwy 16</b> <b>Woodland, CA 95695</b>					
11. TELEPHONE (Include area code) <b>(530) 669-6274</b>		12. FAX (Include area code) <b>(530) 669-6112</b>		13. E-MAIL <b>carol.l.miller@seminis.com</b>	
14. CROP KIND (Common Name) <b>Tomato</b>		16. FAMILY NAME (Botanical) <b>Solanaceae</b>		18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP <b>Lycopersicon esculentum</b>		17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)				20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input checked="" type="checkbox"/> NO (If "no", go to item 23)	
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Exhibit F. Declaration Regarding Deposit g. <input type="checkbox"/> Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)				21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)				22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)					
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 			SIGNATURE OF OWNER		
NAME (Please print or type) <b>Carol L. Miller</b>			NAME (Please print or type)		
CAPACITY OR TITLE <b>PVP Specialist</b>		DATE <b>28-Nov-07</b>		CAPACITY OR TITLE	
				DATE	

(See reverse for instructions and information collection burden statement)

**GENERAL INSTRUCTIONS:** To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filing fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). **NEW:** With the application for a seed reproduced variety or by direct deposit soon after filing, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

**Plant Variety Protection Office**  
**Telephone:** (301) 504-5518 **FAX:** (301) 504-5291  
**General E-mail:** PVPOmail@usda.gov  
**Homepage:** <http://www.ams.usda.gov/science/pvpo/PVPindex.htm>

#200800038

#### SPECIFIC INSTRUCTIONS:

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. <http://www.ams.usda.gov/lsg/seed.htm>.

#### ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;  
(2) the details of subsequent stages of selection and multiplication;  
(3) evidence of uniformity and stability; and  
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:  
(1) identify these varieties and state all differences objectively;  
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and  
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

**22. CONTINUED FROM FRONT** (Please provide a statement as to the limitation and sequence of generations that may be certified.)

**23. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

First Sales of Hybrid 'PICUS' (of which FDS 14-2081 is the female parent line): United States 01-Dec-06; Canada 01-Dec-06

**24. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).) No. 601991,538 Entitled "Tomato Variety FDS 14-2081"

U.S. Patent Application (in process) will be filed prior to November 30, 2007. Filed on

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

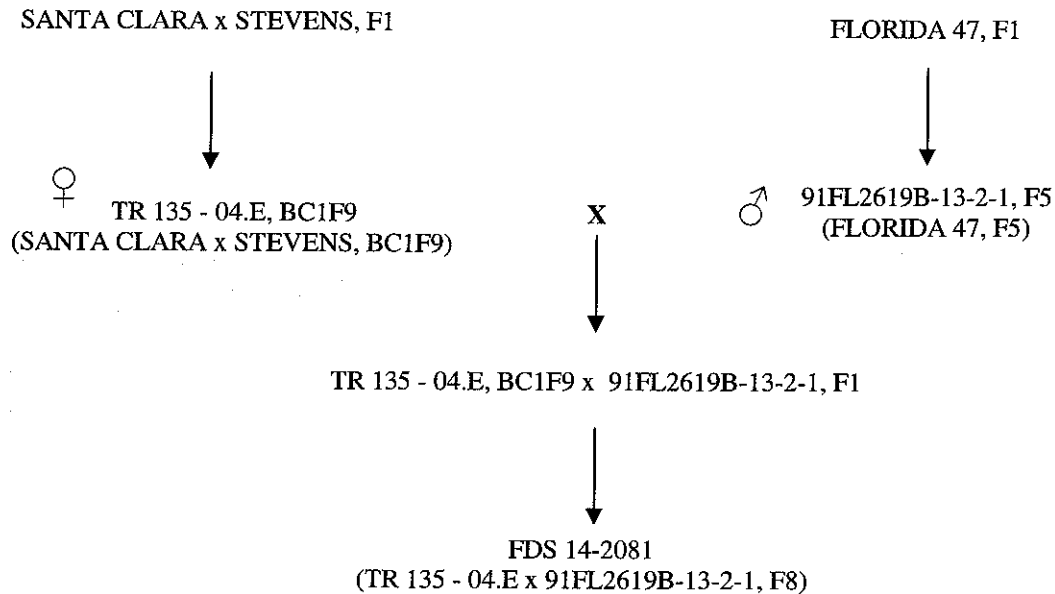
To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## EXHIBIT A

## Origin and Breeding History of Tomato, FDS142081

FDS 14-2081 was developed by pedigree selection from a cross between 'TR 135 - 04.E', an indeterminate, Tomato Spotted Wilt Virus resistant saladette tomato breeding line, and '91FL2619B-13-1', a determinate, firm, uniform shouldered breeding line. Both varieties are Seminis proprietary breeding lines.

The breeding history is as follows:



- 1997 Parental lines, TR 135-04.E (female parent) and 91FL2619B-13-2-1 (male parent) were grown in the Seminis greenhouse at Los Escobas, Mexico and the cross was made.
- 1998 The F1 Hybrid was field grown in row number 1841 at the Seminis Research Station at Paulinia, Sao Paulo, Brazil and F2 seed were harvested.
- 1999 The F2 was field grown at the Seminis Research Station at Paulinia, Sao Paulo, Brazil from February to June in row number 4156 and 17 F3 individual plant selections were harvested and coded 97BR0989-B-01 through 97BR0989-B-17.
- 2000 The F3 selections were field grown at the Seminis Research Station at Carandai, Minas Gerais, Brazil from March to July and from row 3325 (97BR0989-B-05) four plants were selected and F4 seed were harvest as 97BR0989-B-05-1 through 97BR0989-B-05-4.
- 2000 The F4 selections were field grown at the Seminis Research Station at Carandai, Minas Gerais, Brazil from September 2000 to January 2001 and from row 9235 (97BR0989-B-05-2) two plants were selected and F5 seed were harvest as 97BR0989-B-05-2-1 through 97BR0989-B-05-2-2.
- 2001 The F5 selections were field grown at the Seminis Research Station at Paulinia, Sao Paulo, Brazil from March to June and from row 1653 (97BR0989-B-05-2-1) one determinate plant was selected and F6 seed were harvest as 97BR0989-B-05-2-1-1.
- 2002 The F6 selection was field grown at Immokalee, Florida USA from January to April. It was determinate and uniform and ready for test crossing. From row 1912 (97BR0989-B-05-2-1-1) five plants were selected and F7 seed were harvest as 97BR0989-B-05-2-1-1-1 through 97BR0989-B-05-2-1-1-5.

- 2002 The F7 selections were field grown at Immokalee, Florida USA from September to December. The F7 plots were uniform and similar to one another. From row 7347 (97BR0989-B-05-2-1-1-1) six plants were selected and F8 seed were harvest as 97BR0989-B-05-2-1-1-1-1 through 97BR0989-B-05-2-1-1-1-6.
- 2003 The F8 selections were field grown at Immokalee, Florida USA in row numbers 8585 – 8602 from September to December. The plots were uniform and very similar. 97BR0989-B-05-2-1-1-1-1 was chosen to be named FDS 14-2081 and was submitted to the Foundation Seed Department.
- 2005 A foundation seed increase was grown at the Seminis Research Station at Felda, FL USA from February to June. It was uniform.

FDS 14-2081 was selected to develop a determinate Tomato Spotted Wilt Virus (TSWV) resistant saladette tomato line that combines well for developing determinate commercial hybrid saladette tomato cultivars with resistance to TSWV. It was also selected to have a vigorous plant type to better withstand adverse weather during the growing season. In addition, it was selected for good fruit shape uniformity and horticultural quality.

From observations made during the 2002, 2003 and 2005 growing seasons, FDS 14-2081 was found to be uniform and stable within commercially acceptable limits. As is true with other tomato inbred lines, a very small percentage of variants can occur within commercially acceptable limits for many characteristics during the course of repeated multiplication. No genetic variants are known to occur and, to date, this inbred line has been observed to be completely uniform and stable for at least two generations.

## EXHIBIT B

## Statement of Distinctness for Tomato, FDS142081

FDS 14-2081 is described as a parental line to produce Fresh Market Tomato hybrids in the 'Saladette' segment. The novelty of FDS 14-2081 is that it is good combiner for producing determinate fresh market tomato hybrids with elongated fruit shape. It is vigorous and resistant to Tomato Spotted Wilt Virus and allow for healthy growth in field conditions as found in the Eastern U.S.A.

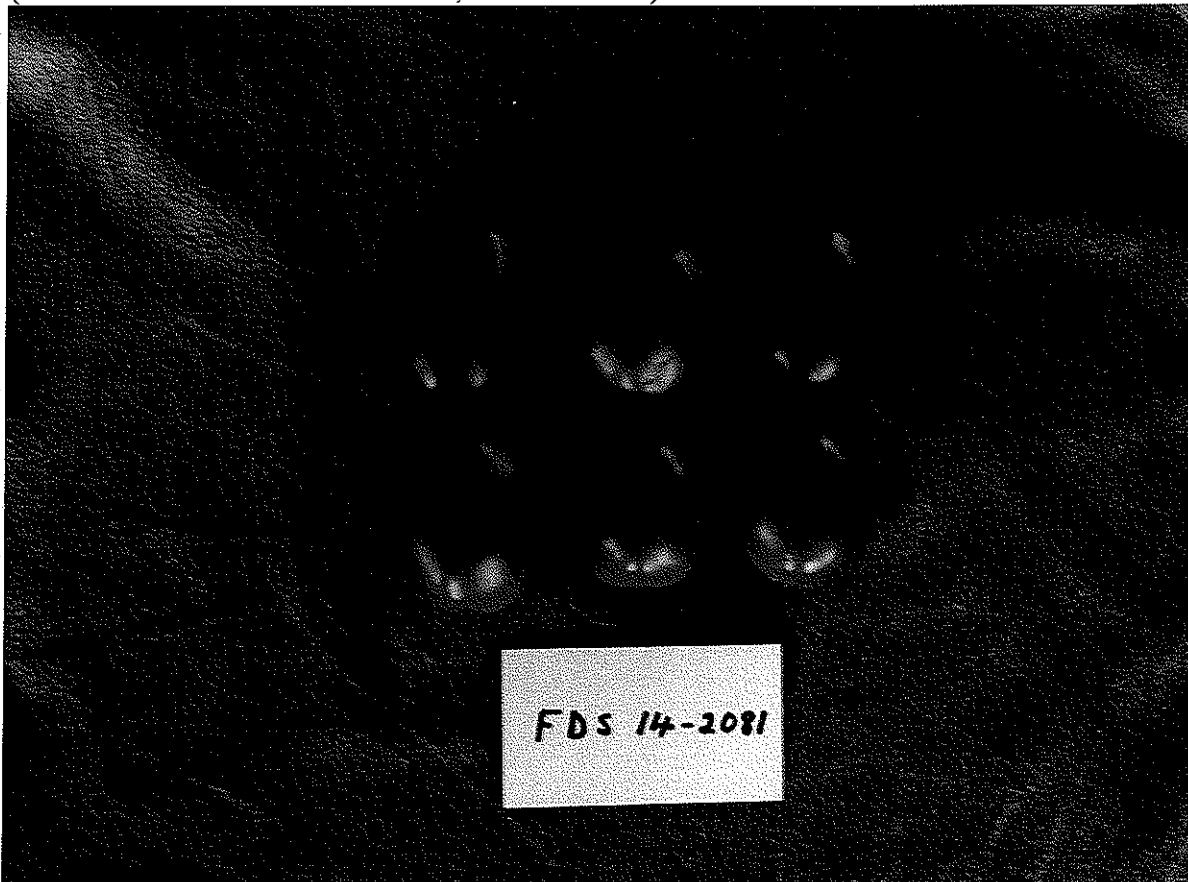
To our knowledge, the variety most closely resembling the candidate variety is FLORIDA 7655. The characteristic that most readily distinguish the two varieties, but may not be limited to, include:

- **Fruit Shape:** the fruit of FDS 14-2081 are blocky (ovate/heart-shaped) and the blossom end is slightly tapered and flattened, whereas the fruit of FLORIDA 7655 are more elongated and cylindrical, and the ends are more tapered and slightly pointed (See Photos 1 and 2).

**Photo 1:**

The fruit of FDS 14-2081 have a shape that is blocky (ovate/heart-shaped) and the blossom end is flattened and slightly tapered.

(Photo Source: Charles W. Fowler, Plant Breeder)



#200800038

**Photo 2:**

The fruit of FLORIDA 7655 have a shape that is elongated and cylindrical, and the ends are tapered and slightly pointed.

(Photo Source: Charles W. Fowler, Plant Breeder)



According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY  
TOMATO (*Lycopersicon esculentum* Mill.)

NAME OF APPLICANT (S) <i>Seminis Vegetable Seeds, Inc.</i>	TEMPORARY OR EXPERIMENTAL DESIGNATION <i>FDS 14-2081</i>	VARIETY NAME <i>'FDS14-2081'</i>
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) <i>2700 Camino del Sol Oxnard, CA 93030</i>		FOR OFFICIAL USE ONLY VPVO NUMBER <i>#200800038</i>

Choose responses for the following characters which best fit your variety. Complete this form as fully as possible for best characterization of the variety. When a single quantitative value is requested (e.g., fruit weight), your answer should be the mean of an adequate-sized, unbiased sample of plants. Use leading zeros when necessary (e.g., 0 9 or 0 8 1, etc.). The applicant variety should be compared with at least one well-known standard check variety of the same type (see list of recommended check varieties below), and grown in the same trials. The characters on this form should be described from plants grown under normal conditions of culture for the variety. Indicated by check whether trial data are from ~~green house~~ field planting. Trials ~~direct seeded~~ transplanted staked or unstaked. Give locations and dates of seeding and transplanting here:

*Tifton, GA : transplanting date 10-Aug-07*

COMPARISONS SHOULD BE MADE TO ONE OR MORE CHECK VARIETIES IN THE FOLLOWING LIST. IF AT ALL POSSIBLE, ENTER THE NUMBER OF THE CHECK IN BOXES WHERE IDENTITY OF CHECK IS REQUESTED.

- |                  |                       |               |  |
|------------------|-----------------------|---------------|--|
| 1 = Ace 55 VF    | 7 = Homestead 24      | 13 = Red Rock | 19 = VF 134                              |
| 2 = Campbell 37  | 8 = Marglobe          | 14 = Roma VF  | 20 = US 28                               |
| 3 = Chico III    | 9 = Murietta          | 15 = Rutgers  | 21 = VF 145 B 7879                       |
| 4 = Flora Dada   | 10 = New Yorker       | 16 = Sunray   | 22 = Other (Specify) <i>Florida 7655</i> |
| 5 = Florida MH-1 | 11 = Ohio MR-13       | 17 = Tropic   |  |
| 6 = Heinz 1350   | 12 = Red Cherry Large |               |  |

## 1. SEEDLING

2 Anthocyanin in hypocotyl of 2 - 15 cm seedling: 1 = Absent 2 = Present

1 Habit of 3 - 4 week old seedling: 1 = Normal 2 = Compact

## 2. MATURE PLANT (at maximum vegetative development)

0 8 5 CM Height

2 Growth: 1 = Indeterminate 2 = Determinate

2 Form: 1 = Lax, open 2 = Normal 3 = Compact 4 = Dwarf 5 = Brachytic

2 Size of canopy (compared to others of similar type): 1 = Small 2 = Medium 3 = Large

2 Habit: 1 = Sprawling (decumbent) 2 = Semi-erect 3 = Erect ('Dwarf Champion')

## 3. STEM

- 2 Branching: 1 = Sparse ('Brehm's Solid Red', 'Fireball') 2 = Intermediate ('Westover') 3 = Profuse ('UC 82')
- 1 Branching at cotyledonary or first leafy node: 1 = Present 2 = Absent
- 3 No. of nodes between first inflorescence: 1 = 1-4 2 = 4-7 3 = 7-10 4 = 10 or more
- 1 No. of nodes between early (1<sup>st</sup> - 2<sup>nd</sup>, 2<sup>nd</sup> - 3<sup>rd</sup>) inflorescences. 1 No. of nodes between later developing inflorescences.
- 2 Pubescence on younger stems: 1 = Smooth (no long hairs) 2 = Sparsely hairy (scattered long hairs) 3 = Moderately hairy 4 = Densely hairy or wooly

4. LEAF (mature leaf beneath the 3<sup>rd</sup> inflorescence)

- 1 Type: 1 = Tomato 2 = Potato ('Trip-L-Crop') 2 Morphology (choose illustration at the end of this form that is most similar)
- 2 Margins of major leaflets: 1 = Nearly entire 2 = Shallowly toothed or scalloped 3 = Deeply toothed or cut, sps. Toward base
- 2 Marginal rolling or wiltiness: 1 = Absent 2 = Slight 3 = Moderate 4 = Strong
- 3 Onset of leaflet rolling: 1 = Early-season 2 = Mid-season 3 = Late season
- 1 Surface of major leaflets: 1 = Smooth 2 = Rugose (bumpy or veiny)
- 2 Pubescence: 1 = Smooth (no long hairs) 2 = Normal 3 = Hirsute 4 = Wooly

5. INFLORESCENCE (make observations on 3<sup>rd</sup> inflorescence)

- 1 Type: 1 = Simple 2 = Forked (2 major axes) 3 = Compound (much branched)
- 05 Number of flowers in inflorescence. Average
- 1 Leafy or "running" inflorescences: 1 = Absent 2 = Occasional 3 = Frequent

## 6. FLOWER

- 1 Calyx: 1 = Normal, lobes awl-shaped 2 = Macrocalyx, lobes large, leaflike 3 = Fleshy
- 1 Calyx-lobes: 1 = Shorter than corolla 2 = Approx. equalling corolla 3 = Distinctly longer than corolla
- 1 Corolla color: 1 = Yellow 2 = Old gold 3 = White or tan
- 1 Style pubescence: 1 = Absent 2 = Sparse 3 = Dense
- 1 Anthers: 1 = All fused into tube 2 = Separating into 2 or more groups at anthesis
- 1 Fasciation (1<sup>st</sup> flower of 2<sup>nd</sup> or 3<sup>rd</sup> inflorescence): 1 = Absent 2 = Occasionally present 3 = Frequently present

7. FRUIT (3<sup>rd</sup> fruit of 3<sup>rd</sup> or 3<sup>rd</sup> cluster) For the first 5 characters below, match your variety with the most similar illustration on pages at the end of this form.

- 7/8 Typical fruit shape (ovate - heart shaped) 1 Shape of transverse section 2 Shape of stem end
- 2/4 Shape of blossom end (flat & tapered but not nipped) 1 Shape of pistil scar
- 1 Abscission layer: 1 = Present (pedicellate) 2 = Absent (jointless)
- 1 Point of detachment of fruit at harvest: 1 = At pedicel joint 2 = At calyx attachment
- 13 MM length of pedicel (from joint to calyx attachment)
- 60.8 MM length of mature fruit (stem axis) 75.3 MM length, check var. no. 22 (Florida 7655)
- 53.5 MM diameter of fruit at widest point 48.4 MM diameter, check var. no. 22
- 103 G weight of mature fruit 94.5 G weight, check var. no. 22 per correspondence 9-23-2008 LMCV 9-25-2008
- 1 No. of locules: 1 = Two 2 = Three and four 3 = Five or more
- 1 Fruit surface: 1 = Smooth 2 = Slightly rough 3 = Moderately rough or ribbed
- 2 Fruit base color (mature-green stage):  
1 = Light green ('Lanai', 'VF 145-F5') 2 = Light gray-green 3 = Apple or medium green ('Heinz 1439 VF') 4 = Yellow green 5 = Dark green
- 1 Fruit pattern (mature-green stage): 1 = Uniform green 2 = Green-shouldered 3 = Radial stripes on sides of fruit

## 7. FRUIT (continued)

- N/A Shoulder color if different from base: 1 = Dark green 2 = Grey green 3 = Yellow green
- 5 Fruit color, full-ripe: 1 = White 2 = Yellow 3 = Orange 4 = Pink 5 = Red 6 = Brownish 7 = Greenish 8 = Other (specify) \_\_\_\_\_
- 3 Flesh color, full-ripe: 1 = Yellow 2 = Pink 3 = Red/Crimson 4 = Orange 5 = Other (specify) \_\_\_\_\_
- 1 Flesh color: 1 = Uniform 2 = With lighter and darker areas in walls
- 3 Locular gel color of table-ripe fruit: 1 = Green 2 = Yellow 3 = Red
- 2 Ripening: 1 = Blossom-to-stem end 2 = Uniform
- 2 Ripening: 1 = Inside out 2 = Uniformly 3 = Outside in
- 1 Stem scar size: 1 = Small ('Roma') 2 = Medium ('Rutgers') 3 = Large
- 2 Core: 1 = Coreless (absent or smaller than 6x6 MM) 2 = Present
- 2 Epidermis color: 1 = Colorless 2 = Yellow
- 1 Epidermis: 1 = Normal 2 = Easy-peel
- 2 Epidermis texture: 1 = Tender 2 = Average 3 = Tough
- 2 med Thickness of pericarp 2 med Thickness of pericarp. Check var. no. 22 (Florida 7655)  
2 Anthocyanin in hypocotyl of 2 - 15 mc seedling: 1 = Absent 2 = Present LMC 9-25-08  
2 Anthocyanin in hypocotyl of 2 - 15 mc seedling: 1 = Absent 2 = Present 1 Habit of 3 - 4 week old seedling: 1 = Normal 2 = Compact

## 8. RESISTANCE TO FRUIT DISORDER

0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Symptom in Number and Size 4 = Moderately Resistance  
 5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

**NOTE** If claim of novelty is based wholly or in substantial part upon resistance, trial data should be appended. These should specify the method of testing, the reaction of the applicant variety, and reaction of well-known check varieties grown in the trial (identified by name).

- |                           |                               |                     |                                     |
|---------------------------|-------------------------------|---------------------|-------------------------------------|
| <u>0</u> Blossom end rot  | <u>0</u> Catface              | <u>0</u> Fruit pox  | <u>0</u> Zippering                  |
| <u>0</u> Blotchy ripening | <u>0</u> Cracking, concentric | <u>0</u> Gold fleck | <u>0</u> Other (specify) <u>N/A</u> |
| <u>0</u> Bursting         | <u>0</u> Cracking, radial     | <u>0</u> Graywall   |                                     |

## 9. DISEASE AND PEST REACTION

0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lesions in Number and Size 4 = Moderately Resistance  
5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

**NOTE** If claim of novelty is based wholly or in substantial part upon disease resistance, trial data should be appended. These should specify the method of testing, the reaction of the applicant's variety, and reaction of well-known check varieties grown in the trial (identified by name).

## Viral Diseases:

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Cucumber mosaic                  | <input type="checkbox"/> Tobacco mosaic, Race 0 | <input type="checkbox"/> Tobacco mosaic, Race 2 <sup>2</sup> |
| <input type="checkbox"/> Curly top                        | <input type="checkbox"/> Tobacco mosaic, Race 1 | <input checked="" type="checkbox"/> Tomato spotted wilt      |
| <input type="checkbox"/> Potato-Y virus                   | <input type="checkbox"/> Tobacco mosaic, Race 2 | <input type="checkbox"/> Tomato yellows                      |
| <input type="checkbox"/> Blotchy ripening                 | <input type="checkbox"/> Cracking, concentric   | <input type="checkbox"/> Gold fleck                          |
| <input type="checkbox"/> Other virus (specify) <u>N/A</u> |   |  |

## Bacterial Diseases:

- |   |   |
|---|---|
| <input type="checkbox"/> Bacterial canker ( <i>Corynebacterium michiganense</i> ) | <input type="checkbox"/> Bacterial spot ( <i>Xanthomonas vesicatorum</i> )  |
| <input type="checkbox"/> Bacterial soft rot ( <i>Erwinia carotovora</i> )         | <input type="checkbox"/> Bacterial wilt ( <i>Pseudomonas solanacearum</i> ) |
| <input type="checkbox"/> Bacterial speck ( <i>Pseudomonas tomato</i> )            | <input type="checkbox"/> Other bacterial disease (specify) <u>N/A</u>       |

## Fungal Diseases:

- |   |  |
|---|--|
| <input type="checkbox"/> Anthracnose ( <i>Colletotrichum</i> spp.)                                      | <input type="checkbox"/> Leaf mold, Race 1 ( <i>Cladosporium fulvum</i> )              |
| <input type="checkbox"/> Brown root rot or corky root ( <i>Pyrenochaeta lycopersici</i> )               | <input type="checkbox"/> Leaf mold, Race 2 ( <i>Cladosporium fulvum</i> )              |
| <input checked="" type="checkbox"/> Collar rot or stem canker ( <i>Alternaria solani</i> )              | <input type="checkbox"/> Leaf mold, Race 3 ( <i>Cladosporium fulvum</i> )              |
| <input type="checkbox"/> Early blight defoliation ( <i>Alternaria solani</i> )                          | <input type="checkbox"/> Leaf mold, other races (specify) <u>N/A</u>                   |
| <input checked="" type="checkbox"/> Fusarium wilt, Race 1 ( <i>F. oxysporum</i> f. <i>lycopersici</i> ) | <input type="checkbox"/> Nailhead spot ( <i>Alternaria tomato</i> )                    |
| <input type="checkbox"/> Fusarium wilt, Race 2 ( <i>F. oxysporum</i> f. <i>lycopersici</i> )            | <input type="checkbox"/> Septoria leafspot ( <i>S. lycopersici</i> )                   |
| <input type="checkbox"/> Fusarium wilt, Race 3 ( <i>F. oxysporum</i> f. <i>lycopersici</i> )            | <input type="checkbox"/> Target leafspot ( <i>Corynespora casicola</i> )               |
| <input checked="" type="checkbox"/> Gray leaf spot ( <i>Stemphylium</i> spp.)                           | <input checked="" type="checkbox"/> Verticillium wilt, Race 1 ( <i>V. albo-atrum</i> ) |
| <input type="checkbox"/> Late blight, Race 0 ( <i>Phytophthora infestans</i> )                          | <input type="checkbox"/> Verticillium wilt Race 2                                      |
| <input type="checkbox"/> Late blight, Race 1  | <input type="checkbox"/> Other fungal disease (specify) <u>N/A</u>                     |

## Insects and Pests:

- |   |   |
|---|---|
| <input type="checkbox"/> Colorado potato beetle ( <i>Leptinotarsa decemlineata</i> )  | <input type="checkbox"/> Tomato hornworm ( <i>Manduca quinquemaculata</i> ) |
| <input type="checkbox"/> Southern root knot nematode ( <i>Meloidogyne incognita</i> ) | <input type="checkbox"/> Tomato fruitworm ( <i>Heliothis zea</i> )          |
| <input type="checkbox"/> Spider mites ( <i>Tetranychus</i> spp.)                      | <input type="checkbox"/> Whitefly ( <i>Trialeurodes vaporariorum</i> )      |
| <input type="checkbox"/> Sugar beet army worm ( <i>Spodoptera exigua</i> )            | <input type="checkbox"/> Other (specify) <u>N/A</u>                         |
| <input type="checkbox"/> Tobacco flea beetle ( <i>Epitrix hirtipennis</i> )           |   |

## Pollutants:

- |                                |   |   |
|--------------------------------|---|---|
| <input type="checkbox"/> Ozone | <input type="checkbox"/> Sulfur dioxide | <input type="checkbox"/> Other (specify) <u>N/A</u> |
|--------------------------------|---|---|

- 10. CHEMISTRY AND COMPOSITION OF FULL-RIPE FRUITS** Suggested test methods may be found in "Tomato Products", 5<sup>th</sup> ed., National Canners Assn. Bull. 27-L. Please specify test methods or give a reference to methods used. Fill in table below with values for the new variety and for at least one well-known check variety of similar type grown in the same trial. Specify names or numbers of check varieties.

	Submitted Variety	Check Variety Florida 7655	Check Variety UC82	Check Variety
pH	4.40	4.32	4.17	
Titratable acidity, as % citric	0.314	0.354	0.348	
Total solids (dry matter, seeds and skin removed)	4.59	5.17	4.40	
Soluble solids as °Brix	3.90%	4.36%	3.69%	

- 11. PHENOLOGY** Express length of developmental stages either as calendar days or as heat units (growing degree days), in degrees Celsius. If heat units are used, indicate the base temperature used in their calculation here \_\_\_\_°C. See paper by Warnock under "References" for method. Give comparative data for at least one check variety; identify checks by name or by number from table on page 1.

	Application Variety	Check Variety Florida 7655	Check Variety UC82	Check Variety
Seeding to 50% flow (1 open on 50% of plants)	31 days	25 days	21 days	
Seed to once over harvest (if applicable)	N/A	N/A	N/A	

1 Fruiting season: 1 = Long ("Marglobe") 2 = Medium ("Westover") 3 = Short, concentrated ("VF 145") 4 = Very concentrated ("UC 82")

4 Relative maturity in areas tested: 1 = Early 2 = Medium early 3 = Medium 4 = Medium late 5 = Late 6 = Variable  
(If relative maturity is known to differ by location or environment, please explain on separate sheet)

- 12. ADAPTATION** If more than one category applies, list all in rank order.

1 Culture: 1 = Field 2 = Greenhouse

2 1 - - Principle use(s): 1 = Home garden 2 = Fresh market 3 = Whole-pack canning 4 = Concentrated products  
5 = Other (specify) \_\_\_\_\_

1 Machine harvest: 1 = Not adapted 2 = Adapted

2 3 4 12 Regions to which adaptation has been demonstrated:

1 = Northeast 2 = Mid Atlantic 3 = Southeast  
6 = South-central 7 = Intermountain West 8 = Northwest  
10 = California: Coastal Areas 11 = California: Southern San Joaquin Valley & deserts

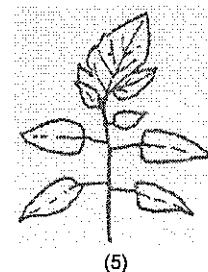
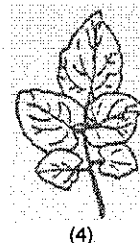
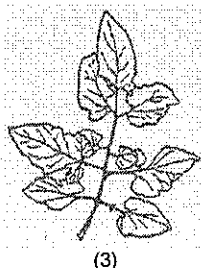
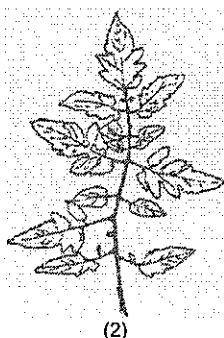
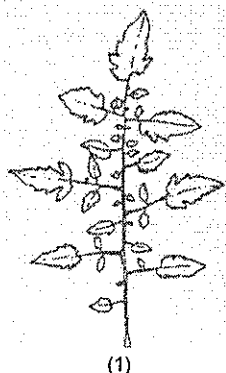
4 = Florida 5 = Great Plains  
9 = California: Sacramento and Upper San Joaquin Valley

12 = midwest

## ILLUSTRATIONS OF TOMATO LEAF AND FRUIT CHARACTERISTICS

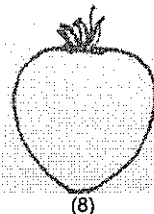
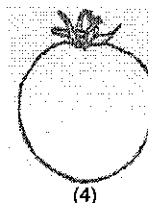
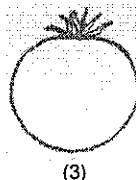
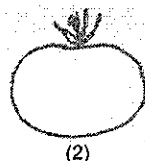
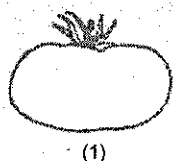
## 4. LEAF

Morphology:

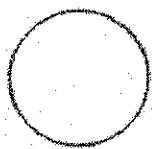


## 7. FRUIT

Typical fruit shape:



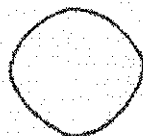
Shape of transverse section:



1 = Round



2 = Flattened



3 = Angular



4 = Irregular

Shape of stem end:



1 = Flat

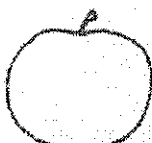


2 = Indented

Shape of blossom end:



1 = Indented



2 = Flat

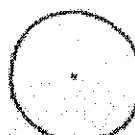


3 = Nipped

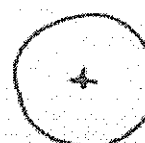


4 = Tapered

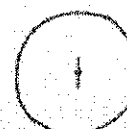
Shape of pistil scar:



1 = Dot



2 = Stellate



3 = Linear



4 = Irregular

## REFERENCES

- Anonymous, 1976. All About Tomatoes. Ortho Books, Chevron Chemical Co., San Francisco. In three volumes: Midwest/Northeast Edition, West Edition, and South Edition.
- Ware, G.W. & J.P. McCollum, 1968. Producing Vegetable Crops. The Interstate Printer & Publishers, Inc., Danville, Illinois. Chapter 30, pp. 451-473, "Tomatoes".
- Warnock, S.J. 1978. Using Tomato Heat Units. Leaflet No. 6, Campbell Institute for Agricultural Research, Camden, NJ. 10 p.
- Webb, R.E., T.H. Barksdale, & A.K. Stoner, 1973. "Tomatoes", pp. 344-361, in: Nelson, R.R. (Ed.), Breeding Plants for Disease Resistance. Pennsylvania State University Press, University Park.
- Young, P.A. & J.W. MacArthur, 1947. Horticultural characters of tomatoes. Bull. Texas Agric. Exper. Station No. 698..

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FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

**EXHIBIT E  
STATEMENT OF THE BASIS OF OWNERSHIP**

1. NAME OF APPLICANT(S)  Seminis Vegetable Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER  FDS 14-2081	3. VARIETY NAME  FDS142081
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)  2700 Camino del Sol Oxnard, California 93030	5. TELEPHONE (Include area code)  (805) 647-1572	6. FAX (Include area code)  (805) 918-2545
7. PVPO NUMBER		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

The variety named in this application was developed by the Seminis Vegetable Seeds, Inc., employee (breeder) identified below. By agreement between the employee and Seminis Vegetable Seeds, Inc., all rights to any invention, discovery, or development made by an employee are assigned to the Company. No rights to such an invention, discovery, or development are retained by the employee.

Employee (Breeder): Charles W. Fowler

Site Location: Naples, FL

**PLEASE NOTE:**

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY  
PLANT VARIETY PROTECTION OFFICE  
BELTSVILLE, MD 20705

EXHIBIT F  
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S) Seminis Vegetable Seeds, Inc.	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) 2700 Camino del Sol Oxnard, CA 93030	TEMPORARY OR EXPERIMENTAL DESIGNATION FDS 14-2081
NAME OF OWNER REPRESENTATIVE (S) Carol L. Miller	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) <del>2700 Camino del Sol</del> 37437 State Hwy 16 <del>Oxnard, CA 93030</del> Woodland, CA 95695	VARIETY NAME FDS142081  FOR OFFICIAL USE ONLY PVPO NUMBER #200800038

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Carol L. Miller  
Signature

28-Nov-07  
Date